

Claims

1. A communication system (10) for integrating services in an environment having several spatial zones (cabin 1, cabin 2), particularly in a ship, comprising an IP-based communication network (20), at least one adapting and connecting device (30, 30') that is connected to the IP-based communication network (20) and that is assigned to a spatial zone (cabin 1, cabin 2), whereby the adapting and connecting device (30, 30') has a first group of interfaces (40, 50, 120) for connecting non-IP-based devices as well as a device (80) for converting messages supplied by a non-IP-based device or supplied to a non-IP-based device into IP data in accordance with an IP communication protocol, and whereby an IP address is assigned to the adapting and connecting device (30, 30').
2. The communication system (10) for integrating services according to claim 1, characterized by a second group of interfaces (130) for connecting IP-based devices.
3. The communication system (10) for integrating services according to claim 1 or 2, characterized in that a pre-specified priority is assigned to at least one of the interfaces (40, 50, 120, 130) and in that the adapting and connecting device (30, 30') has a priority-controlled switching matrix (90) for connecting an interface (40, 50, 120, 130) to the IP-based communication network (20).
4. The communication system (10) for integrating services according to claim 1, 2 or 3, characterized in that a pre-specified priority is assigned to at least one message intended for at least one interface (40, 50, 120, 130), and in that the adapting and connecting device (30, 30') has a priority-controlled switching matrix (90) for forwarding the message in accordance with its priority to the IP-based communication network (20).
5. The communication system (10) for integrating services according to one of claims 1 to 4, characterized in that, in each case, an analog-to-digital and digital-to-analog converter (60, 65, 70, 75) is assigned to at least some interfaces (40, 50) of the first group.

6. The communication system (10) for integrating services according to one of claims 1 to 5, characterized in that the adapting and connecting device (30, 30') has a programmable device (200) for activating or deactivating the interfaces.
7. The communication system (10) for integrating services according to one of claims 1 to 6, characterized in that the adapting and connecting device (30, 30') is designed for remote configuration and maintenance.
8. The communication system (10) for integrating services according to one of claims 1 to 7, characterized in that the adapting and connecting device (30, 30') has a storage unit (190) for storing configuration data and/or for temporarily storing the messages received at the interfaces (40, 50, 120, 130) or received via the IP-based communication network (20).
9. The communication system (10) for integrating services according to one of claims 1 to 8, characterized in that the adapting and connecting device (30, 30') has a monitoring device (180) for the interfaces (40, 50, 120, 130) as well as a device for generating and transmitting status and/or error messages to a management device (26).
10. The communication system (10) for integrating services according to one of claims 1 to 9, characterized in that the adapting and connecting device (30, 30') has a device for encrypting and decrypting (100) messages.
11. The communication system (10) for integrating services according to one of claims 1 to 9, characterized in that the adapting and connecting device (30, 30') has an internal power supply device (150) by means of which the IP-based devices and the non-IP-based devices connected to the interfaces can be temporarily supplied with electric power.
12. An adapting and connecting device (30, 30'), especially for use in a communication system (10) for integrating services according to one of claims 1 to 11, characterized by a first group of interfaces (40, 50, 120) for connecting non-IP-based devices as

well as a device (80) for converting messages supplied by a non-IP-based device into IP data in accordance with an IP communication protocol.

13. The adapting and connecting device (30, 30') according to claim 12, characterized by a second group of interfaces (130) for connecting IP-based devices.
14. The adapting and connecting device (30, 30') according to claim 12 or 13, characterized in that a pre-specified priority is assigned to at least one of the interfaces and in that the adapting and connecting device has a priority-controlled switching matrix (90) for connecting an interface to an IP-based communication network.
15. The adapting and connecting device (30, 30') according to one of claims 12 to 14, characterized in that a pre-specified priority is assigned to at least one message intended for at least one interface (40, 50, 120, 130), and in that the adapting and connecting device (30, 30') has a priority-controlled switching matrix (90) for forwarding the message in accordance with its priority to the IP-based communication network (20).
16. The adapting and connecting device (30, 30') according to one of claims 12 to 15, characterized by a programmable device (200) for activating and deactivating the interfaces (40, 50, 120, 130).
17. The adapting and connecting device (30, 30') according to one of claims 12 to 16, characterized by a monitoring device (180) for the interfaces (40, 50, 120, 130) as well as a device for generating and transmitting status and/or error messages to a management device (26).
18. The adapting and connecting device (30, 30') according to one of claims 12 to 17, characterized by a device (100) for encrypting and decrypting messages.
19. The adapting and connecting device (30, 30') according to one of claims 12 to 18, characterized by an internal power supply device (150).